

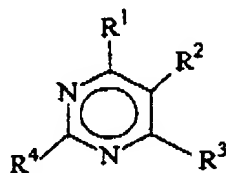
Docket No. H3294 PCT/US  
Application Serial No. 09/869,171  
PCT/EP99/09901

**AMENDMENT TO THE CLAIMS**

1-13. (Cancelled)

14. (Previously presented) A method of coloring keratin fibers comprising  
(A) applying to keratin fibers a coloring composition formed from components comprising

(a) at least one pyrimidine derivative of formula I



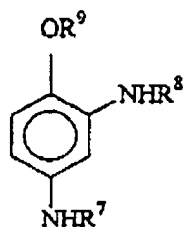
(I)

wherein  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are, independently of one another, selected from hydrogen, an OH group, a  $NH_2$  group, or a  $NR^5R^6$  group, wherein  $R^5$  and  $R^6$  are independently selected from a  $C_1$  to  $C_4$  alkyl group, or a  $C_1$  to  $C_4$  hydroxyalkyl group having one or more hydroxyl groups that are primary, secondary or combinations thereof, or where two of the  $R^1$ ,  $R^2$ ,  $R^3$  or  $R^4$  substituents together form a 5 or 6 member, optionally substituted, heterocycle ring containing one or two nitrogen atoms, or one or two oxygen atoms or a combination of both in the heterocycle ring, with the proviso that at least two of the  $R^1$ ,  $R^2$ ,  $R^3$  or  $R^4$  substituents are a  $NH_2$  group or  $NR^5R^6$  group, and

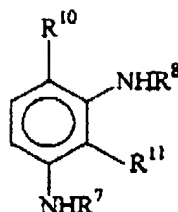
(b) at least one compound selected from

(i) m-phenylene derivatives of formula II or III

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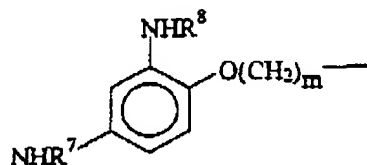


(II)



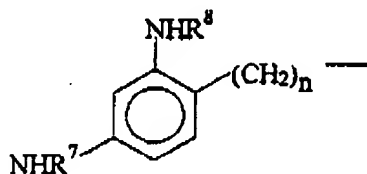
(III)

wherein  $R^7$ ,  $R^8$  and  $R^{11}$  are independently from one another hydrogen, a  $C_1$  to  $C_4$  alkyl group or a  $C_1$  to  $C_4$  hydroxyalkyl group,  $R^9$  is a  $C_1$  to  $C_4$  hydroxyalkyl group or a radical of formula IV



(IV)

in which  $R^7$  and  $R^8$  are defined as above and  $m$  is an integer from 1 to 4, and  $R^{10}$  is hydrogen or a radical of formula V

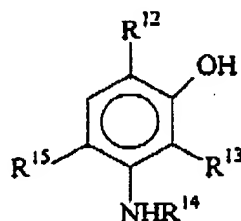


(V)

in which  $R^7$  and  $R^8$  are as defined above and  $n$  is an integer from 1 to 4,

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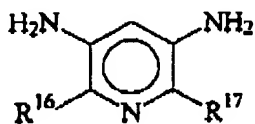
(ii) m-aminophenol derivatives of formula (VI)



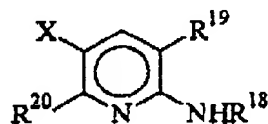
(VI)

wherein  $R^{12}$  is hydrogen or a  $C_1$  to  $C_4$  alkyl group,  $R^{13}$  is hydrogen, fluorine, chlorine, an  $OCH_3$  group or a  $C_1$  to  $C_4$  alkyl group,  $R^{14}$  is hydrogen, a  $C_1$  to  $C_4$  alkyl group, a  $C_1$  to  $C_4$  hydroxyalkyl group or an  $OCF_3$  group,  $R^{15}$  is hydrogen, fluorine, chlorine or an  $OCH_3$  group, with the provisos that  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$  and  $R^{15}$  are not hydrogen at the same time, and that, if  $R^{12}$  is methyl,  $R^{13}$ ,  $R^{14}$  and  $R^{15}$  are not hydrogen at the same time,

(iii) pyridine derivatives of formula VII or VIII



(VII)



(VIII)

wherein  $R^{16}$  and  $R^{17}$  are independently fluorine, chlorine or an  $OCH_3$  group,  $R^{18}$  is hydrogen, a  $C_1$  to  $C_4$  alkyl group or a  $C_1$  to  $C_4$  hydroxyalkyl group,  $R^{19}$  is an OH group or  $NH_2$  group,  $R^{20}$  is hydrogen, a  $C_1$  to  $C_4$  alkoxy group or a  $NH_2$  group, X is hydrogen or

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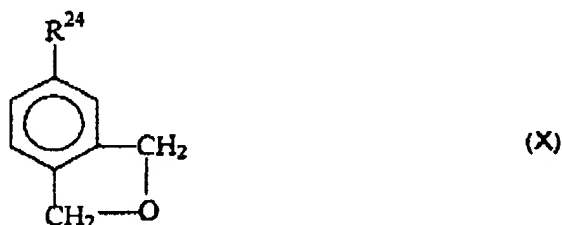
an OCH<sub>3</sub> group, with the provisos that, if R<sup>19</sup> is NH<sub>2</sub>, R<sup>18</sup> and R<sup>20</sup> are not a C<sub>1</sub> to C<sub>4</sub> alkyl group and a methoxy group, respectively, at the same time, and if R<sup>18</sup> is hydrogen, R<sup>19</sup> and R<sup>20</sup> are not an OH group and hydrogen, respectively, at the same time,

(iv) resorcinol derivatives of formula IX



wherein R<sup>21</sup>, R<sup>22</sup> and R<sup>23</sup> are independently from one another hydrogen, a C<sub>1</sub> to C<sub>4</sub> alkyl group or a C<sub>1</sub> to C<sub>4</sub> hydroxyalkyl group, with the provisos that R<sup>21</sup>, R<sup>22</sup> and R<sup>23</sup> are not hydrogen at the same time, R<sup>22</sup> is not methyl if R<sup>21</sup> and R<sup>23</sup> are hydrogen, and R<sup>22</sup> and R<sup>23</sup> are not hydrogen at the same time if R<sup>21</sup> is methyl,

(v) methylenedioxybenzene derivatives of formula X



wherein R<sup>24</sup> is an OH group, a NH<sub>2</sub> group or a NHR<sup>25</sup> group, in which R<sup>25</sup> is a C<sub>1</sub> to C<sub>4</sub> alkyl group or a C<sub>1</sub> to C<sub>4</sub> hydroxyalkyl, or

(vi) 3,4-diaminobenzoic acid, or

(vii) combinations thereof; and

(B) oxidatively developing the coloring composition using atmospheric oxygen, an enzyme containing system, or combinations thereof as the sole oxidizing agent.

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15. (Previously presented) The method of claim 14 wherein the pyrimidine derivative is 4-hydroxy-2,5,6-triaminopyrimidine, 2-hydroxy-2,5,6-triaminopyrimidine, 2,4,5,6-tetraaminopyrimidine, 5,6-diamino-2,4-dihydroxypyrimidine, 2,4-diamino-5,6-dihydroxypyrimidine, or 4-methylamino-2,5,6-tetraminopyrimidine, or combinations thereof.

16. (Previously presented) The method of claim 15 wherein the pyrimidine derivative is 2,4,5,6-tetraaminopyrimidine.

17. (Previously presented) The method of claim 15 wherein the pyrimidine derivative is present in the coloring composition in an amount of from 0.03 mmol to 65 mmol, based on 100 g of the coloring composition as a whole.

18. (Previously presented) The method of claim 14 wherein at least one of  $R^7$  and  $R^8$  of the Formula III is a  $C_1$  to  $C_4$  alkyl group or a  $C_1$  to  $C_4$  hydroxyalkyl group, and wherein  $R^{20}$  of the Formula VII is hydrogen or a  $C_1$  to  $C_4$  alkoxy group.

19. (Previously presented) The method of claim 14 wherein the component B comprises 1,3-bis(2,4-diaminophenoxy)propane, 1,3-bis(2,4-diaminophenyl)propane, 2,4-diaminophenoxyethanol, 2,6-bis(2'-hydroxyethylamino)toluene, 3-amino-2-chloro-6-methylphenol, 5-amino-4-chloro-2-methylphenol, 2,4-dichloro-3-aminophenol, 3,5-diamino-2,6-dimethoxypyridine, 5-methylresorcinol, 2,5-dimethylresorcinol, 3,4-methylenedioxyphenol, 3,4-methylenedioxyaniline, or N-(2-hydroxyethyl)-3,4-methylenedioxyaniline, or combinations thereof.

20. (Previously presented) The method of claim 19 wherein each compound of component B is present in the coloring composition in an amount of 0.03 mmol to 65 mmol, based on 100 g of the coloring composition as a whole.

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21. (Previously presented) The method of claim 14 wherein the coloring composition further comprises at least one activated carbonyl compound selected from the group consisting of isatin, 5-chloroisatin, 5-bromoisatin, 6-bromoisatin, 5-nitroisatin, N-hydroxymethylisatin, N-allylisatin, 5-isatinsulfonic acid Na salt, glutaconaldehyde tetrabutylammonium salt, tribase aldehyde, malonaldehyde bis(dimethyl acetal), 4-hydroxy-3-methoxycinnanaldehyde, 1-piperidinomethylisatin, 1-diethylaminomethylisatin, glutaconaldehyde Na salt, 5-N-methylanilinopentadienyl, 2-chloro-3-hydroxymethylene-1-cyclohexene 1-aldehyde, N-(5-anilino-2,4-pentadien-1-ylidene)anilinium chloride, trans- $\beta$ -(2-furyl)acrolein, 2-nitro-1,3-indanedione, dehydroascorbic acid, 2-acetyl-1,3-cyclohexanedione, 7-dimethylamino-2,4,6-heptatrienylydene dimethylammonium perchlorate, 4-formyl-1-methylpyridinium benzenesulfonate, and combinations thereof.

22. (Previously presented) The method of claim 14 wherein the coloring composition further comprises one or more compounds selected from 5,6-dihydroxyindole or its N-substituted C<sub>1</sub> to C<sub>4</sub> alkyl or C<sub>1</sub> to C<sub>4</sub> hydroxyalkyl derivatives, or 5,6-dihydroxyindoline or its N-substituted C<sub>1</sub> to C<sub>4</sub> alkyl or C<sub>1</sub>-C<sub>4</sub>-hydroxyalkyl derivatives or combinations thereof.

23. (Previously presented) The method of claim 14 wherein the coloring composition further comprises one or more compounds selected from p-phenylenediamine, p-tolylenediamine, p-aminophenol, 4,4'-diaminodiphenylamine, 1,10-bis(2,5-diaminophenyl)-1,4,7,10-tetraoxydecane, 2,(2'-hydroxyethyl)-p-phenylenediamine, 2,6-dichloro-4-aminophenol, N,N-bis(2'-hydroxyethyl)-p-phenylenediamine, 3-methyl-4-aminophenol, 2-aminomethyl-4-aminophenol, 5-aminosalicylic acid, bis(2-hydroxy-5-aminophenyl)methane, or 2-(2,5-diaminophenoxy)ethanol, or combinations thereof.

24. (Previously presented) The method of claim 14 wherein the coloring composition further comprises anionic surfactants, zwitterionic surfactants, nonionic surfactants, or

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combinations thereof.

25. (Previously presented) The method of claim 14 wherein the coloring composition is combined with an enzyme containing system before the application of the coloring composition to the keratin fibers.

26-30. (Cancelled)